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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,397	04/09/2004	Chun Hung Ning	BP 3384	8437

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EXAMINER

MYERS, PAUL R

ART UNIT PAPER NUMBER

2112

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/821,397	<b>Applicant(s)</b> NING ET AL.	
	<b>Examiner</b> Paul R. Myers	<b>Art Unit</b> 2112	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-4, 16-17 recites the limitation "said transactions". Claim 1 upon which claim 4 depends states first transactions and second transactions. It is unclear if said transactions are said first transactions, said second transactions or said first and second transactions. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5-15, 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Askar et al PN 6,725,297.

In regards to claims 1, 14: Askar et al teaches a system for managing data transactions between a first bus (140 or alternatively 50) and a second bus (560), comprising: a first transaction conversion module (355 or alternatively 120) operably connected to said first bus (140), said first transaction conversion module being operable to receive transactions from said first bus in a first format; a fully programmable ordering rules logic module (everything between 355 and 470 The examiner notes the figure refers to 490 the specification refers to 470) operably

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connected to said first transaction module (355) to receive said converted transactions in said internal format and to control issuing of said transactions in accordance with a dependency relationship between said individual transactions and further operable to issue validated transactions (Out of arbitration logic 410); a second transaction conversion module (470) operably connected to said transaction ordering logic and to said second bus (560), said second transaction conversion module being operable to convert said validated transactions into a second format for said second bus (Column 9 lines 31-40). Askar teaches the first transaction conversion module extracting the transactions off the first bus but does not teach converting said transactions into an internal format. Askar does teach translating formats from an internal format to a second format. It would have been obvious to have the first transaction module translate from a first format into the internal format of the peripheral interface circuit because this would have allowed for different bus 50/140 protocols.

In regards to claims 2, 15: the different buses having different ordering rules.

In regards to claims 5, 9-10, 18, 22-23: Askar teaches configuring the arbiters. Askar does not teach the configuration using configuration registers. Official notice is taken that using configuration registers to configure a device is very common. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a configuration register in configuring because this is a common method of configuring.

In regards to claims 6-8, 11, 19-21, 24: Askar teaches multiple arbiters 410 in 2<sup>nd</sup>, 3<sup>rd</sup> interfaces See also figure 13 which reorders the transactions within each queue.

In regards to claims 12-13, 25-26: Askar teaches both dependant and non-dependant ordering.

5. Claims 3, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Askar et al PN 6,725,297 as applied to claim 1 above, and further in view of Turner PN 5,260,935.

In regards to claims 3, 16: Askar et al teaches reordering transactions. Askar et al does not teach using a time stamp in reordering the transactions. Turner teaches using a time stamp in reordering transactions. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a time stamp because this would have allowed for transactions that are highly time dependant such as graphics be used.

6. Claims 4, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Askar et al PN 6,725,297 as applied to claim 1 above, and further in view of Jeddeloh PN 2003/0217239.

In regards to claims 4, 17: Askar teaches reordering the transactions. Askar does not teach the reordering is to optimize the availability of the bus. Jeddeloh teaches reordering transactions to optimize the availability of the bus. It would have been obvious to optimize the bus because this would have allowed for maximum efficiency.

### ***Conclusion***

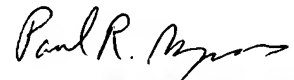
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 571 272 3639. The examiner can normally be reached on Mon-Thur 6:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PAUL R. MYERS  
PRIMARY EXAMINER

PRM  
February 28, 2006